

Amendment
U.S. Patent Application Serial No. 10/780,883

REMARKS

Claims 1 - 2, 17 - 18 and 30 have been amended.

Claims 1 - 30 are present and pending in the subject application.

In the Office Action mailed November 13, 2006, the Examiner has objected to the specification, has objected to claims 2 and 18, has rejected claim 30 under 35 U.S.C. §112, second paragraph, as being indefinite, has rejected claims 1 - 4, 7, 10 - 20, 23 and 26 - 30 under 35 U.S.C. §102(b) and has rejected claims 5 - 6, 8 - 9, 21 - 22, 24 and 25 under 35 U.S.C. §103(a). Favorable reconsideration of the subject application is respectfully requested in view of the following remarks.

Initially, the Examiner has objected to the specification due to various informalities. For example, the Examiner suggests modifying the terms “re-read button 45”, “button 47” and “microcontroller” to “re-read button 47”, “button 45” and “microcontroller”, respectively. The Examiner further suggests capitalizing the trademark Motorola. Accordingly, the specification has been amended in accordance with the Examiner’s comments without introduction of new matter and is considered to overcome the objections.

The Examiner has objected to claims 2 and 18, while rejecting claim 30 under 35 U.S.C. §112, second paragraph, as being indefinite. The Examiner takes the position that the term “coincident said” within claims 2 and 18 should be changed to “coincident to”. In addition, the Examiner alleges that method claim 30 is indefinite since method claim 30 depends from device claim 1.

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Claim 2 and 18 have been amended and recite “coincident with”, while method claim 30 has been amended to depend from method claim 17. Accordingly, the claims are considered to overcome the claim objections and indefiniteness rejection.

The Examiner has rejected claims 1 - 4, 7, 10 - 20, 23 and 26 - 30 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,067,718 (Knox et al.). Briefly, the present invention is directed toward a golf green measuring device including a plurality of spaced apart rails attached to an enclosed structure. The structure includes a control unit including a microcontroller, circuitry, a battery, a display and a level indicator. The rails include infrared emitters and detectors that sense a golf ball traveling through the enclosed structure. The microcontroller measures the elapsed time the golf ball travels between a pair of detectors disposed at the rail front end and the elapsed time the golf ball travels between another pair of detectors disposed at the rail rear end. The change in velocity or deceleration of the golf ball is determined based on the measured time intervals and converted into a speed value. The computed speed value is displayed on a device display.

The Examiner takes the position that the Knox et al. patent discloses the features within these claims.

This rejection is respectfully traversed since the Knox et al. patent does not disclose, teach or suggest at least a processor determining a value indicative of a surface property as recited in the independent claims. However, in order to expedite prosecution of the subject application, independent claims 1 and 17 have been amended and recite the features of determining deceleration of the object through the passage due to the surface and producing

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based on the deceleration a resultant measurement value indicative of the surface property and in relation to a predetermined scale, wherein the resultant measurement value pertains to a total distance an object travels on the surface in response to an initial predefined reference velocity.

The Knox et al. patent does not disclose, teach or suggest these features. Rather, the Knox et al. patent discloses a golf putting device including a shell which presents a ball receiving chamber open at the front to receive incoming putted golf balls. An infrared transmitter on one side of the chamber near the opening for the ball emits energy which is received by two receivers located on the opposite side of the chamber (e.g., See Fig. 4; Abstract; Column 3, lines 21 - 36). The first receiver is located directly across the transverse dimension of the path from the transmitter to receive a first beam, while the second receiver is displaced from the first receiver and receives a second beam at an acute angle relative to the first beam. The ball intercepts the beams as it rolls through the chamber (e.g., See Column 3, lines 36 - 46). By sensing the time one beam is intercepted by the ball and using the known ball size, the ball speed can be calculated (e.g., See Abstract; Column 6, lines 63 - 68). By sensing the interval between the times the two beams are intercepted and using the ball speed, the position of the ball transversely can be calculated to determine whether it is on target or off target (e.g., See Abstract; Column 7, lines 5 - 17). A display panel may display a putt number, percentage of putts made, percentage of putts to the left and right of the target, the speed of the immediately preceding putt, the average speed of all putts and a running score (e.g., See Column 5, lines 1 - 16).

Thus, the Knox et al. patent discloses a putting device that measures speed and transverse direction of a ball putted toward a simulated target. Although the device may measure

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deceleration of the ball, the deceleration is used to more accurately determine the transverse direction of the ball (e.g., See Column 9, lines 25 - 29). There is no disclosure, teaching or suggestion of producing based on the deceleration of the object a resultant measurement value indicative of the surface property and in relation to a predetermined scale, wherein the resultant measurement value pertains to a total distance an object travels on the surface in response to an initial predefined reference velocity. In other words, the Knox et al. patent determines the speed and position of a putted ball, as opposed to measurement of a surface property (the total distance the ball travels on the surface in response to a reference velocity) as recited in the claims.

Since the Knox et al. patent does not disclose, teach or suggest the features recited in independent claims 1 and 17 as discussed above, these claims are considered to be in condition for allowance.

Claims 2 - 4, 7, 10 - 16, 18 - 20, 23 and 26 - 30 depend, either directly or indirectly, from independent claims 1 or 17 and, therefore, include all the limitations of their parent claims. These dependent claims are considered to be in condition for allowance for substantially the same reasons discussed above in relation to their parent claims and for further limitations recited in the dependent claims. For example, claims 12, 13 and 27 recite the features of first pair of detection units disposed a first end of the passage and a second pair of detection units disposed at an opposing end of the passage. In contrast, the Knox et al. patent discloses a transmitter with two receivers each disposed toward the open end of the chamber as discussed above.

Claims 14, 15, 28 and 29 recite the features of retrieving a corresponding value from a storage unit serving as the resultant measurement value and the stored values corresponding to

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surface property values determined from prior surface measurements. In contrast, the Knox et al. patent discloses a look-up table used to determine the transverse distances of the putted ball (e.g., See Column 7, lines 26 - 35).

The Examiner has rejected claims 5 - 6, 8, 21 - 22 and 24 under 35 U.S.C. §103(a) as being unpatentable over the Knox et al. patent in view of U.S. Patent No. 6,860,139 (Pelz). Initially, claims 5 - 6, 8, 21 - 22 and 24 depend, either directly or indirectly, from independent claims 1 or 17 and, therefore, include all the limitations of their parent claims. As discussed above, the Knox et al. patent does not disclose, teach or suggest the features of producing based on the deceleration of the object a resultant measurement value indicative of the surface property and in relation to a predetermined scale, wherein the resultant measurement value pertains to a total distance an object travels on the surface in response to an initial predefined reference velocity as recited in the claims. The Pelz patent does not compensate for the deficiencies of the Knox et al. patent and is merely utilized by the Examiner for an alleged teaching of an apparatus for measuring green-speed that uses a guide with a track member or golf ball rolling ramp and a level .

Since the Knox et al. and Pelz patents do not disclose, teach or suggest, either alone or in combination, the features recited in claims 5 - 6, 8, 21 - 22 and 24 as discussed above, these claims are considered to be in condition for allowance.

The Examiner has rejected claims 9 and 25 under 35 U.S.C. §103(a) as being unpatentable over the Knox et al. patent in view of U.S. Patent No. 5,387,903(Cutter et al.). Initially, claims 9 and 25 respectively depend from independent claims 1 and 17 and, therefore,

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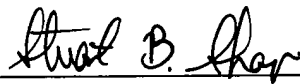
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include all the limitations of their parent claims. As discussed above, the Knox et al. patent does not disclose, teach or suggest the features of producing based on the deceleration of the object a resultant measurement value indicative of the surface property and in relation to a predetermined scale, wherein the resultant measurement value pertains to a total distance an object travels on the surface in response to an initial predefined reference velocity as recited in the claims. The Cutter et al. patent does not compensate for the deficiencies of the Knox et al. patent and is merely utilized by the Examiner for an alleged teaching of a display with a power indicator.

Since the Knox et al. and Cutter et al. patents do not disclose, teach or suggest, either alone or in combination, the features recited in claims 9 and 25 as discussed above, these claims are considered to be in condition for allowance.

The application, having been shown to overcome the issues raised in the Office Action, is considered to be in condition for allowance and a Notice of Allowance is earnestly solicited.

Respectfully submitted,



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